

Kraken II Remote Operating Vehicle (ROV)



Alvin deep-diving manned submersible



Long Term Ecological Observatory



Aquarius, the world's only underwater laboratory

1315 East West Hwy
Silver Spring, MD 20910
301-713-1671
www.oar.noaa.gov

National Undersea Research Program

Leader in underwater science and exploration

What does the National Undersea Research Program do for the nation?

The National Undersea Research Program (NURP) serves the nation by providing undersea scientists with the tools and expertise they need to work in the undersea environment. NURP works with scientists to use submersibles, remotely operated or autonomous underwater vehicles, mixed gas diving gear, underwater laboratories and observatories, and other cutting edge technologies. NURP's research programs cover a range of undersea environments from the shoreline to the deep sea and include nearly all the scientific disciplines.

NURP is headquartered in NOAA's Office of Oceanic and Atmospheric Research (OAR) in Silver Spring, MD, with regional centers around the nation. NURP provides grants through its regional centers to the non-federal research community. Highest priority is given to studies in the United States, its large lakes, territorial seas, and adjacent waters. The regional centers annually support two hundred or more undersea research projects that address NOAA's mission as steward of oceanic resources and environments. Presently, the regional centers include:

- North Atlantic and Great Lakes: University of Connecticut-Avery Point
- Mid-Atlantic Bight: Rutgers University
- Southeast and Gulf of Mexico: University of North Carolina at Wilmington
- Caribbean: Caribbean Marine Research Center; Perry Institute of Marine Science
- West Coast and Polar Regions: University of Alaska Fairbanks
- Hawaii and the Western Pacific: University of Hawaii at Manoa, Hawaii Undersea Research Laboratory

Recent Accomplishments:

- Research on the effects of trawling on seafloor habitats. **Payoffs: Areas currently closed to fishing provide an opportunity to assess recovery rates in a range of habitats and oceanographic conditions. This will provide management with information on appropriate timing of reopening the closure areas.**
- Research on factors affecting coral health. **Payoffs: Maintaining the health of corals and preventing damage to coral reefs are national goals. Healthy coral ecosystems support commercial and recreational activities that are worth over one billion dollars annually. NURP has conducted over 100 research projects addressing a wide range of topics relevant to corals including fisheries, reef conditions, and water quality.**
- Research on frozen methane hydrates. **Payoffs: Hydrates may hold more than 1,000 times more energy than all estimated oil and gas sources combined. NURP has supported numerous submersible cruises in the Gulf of Mexico to study hydrates, their unique environments and the ecosystems associated with them.**

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- Pioneering development of unmanned observatories for ocean bottom research. **Payoffs: NURP provides the ability to study offshore seafloor phenomena in real time.**

What's Next for NURP?

Science Challenges in the next five to 10 years:

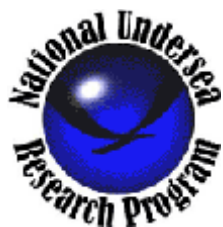
- Assume leadership of the U.S. Program in ocean exploration to better assess living and non-living resources, physical and biogeochemical processes, and how to better sustain the oceans and Great Lakes for future generations.
- Improve understanding of undersea ecosystems.
- Support exploration and discovery of new resources, including biomedical substances.
- In cooperation with NMFS, improve the science basis to maintain healthy fisheries stocks and rebuild protected species.
- Develop principal technologies to support exploration and research in the undersea environment.

Research Partnerships:

NURP partners are the University of Connecticut-Avery Point, Rutgers University, the University of North Carolina-Wilmington, the Caribbean Marine Research Center, the University of Hawaii-Manoa, the University of Alaska Fairbanks, Woods Hole Oceanographic Institution, and the Jason Foundation.

Budget and Staff:

NURP manages a \$13.8 million program with 5 federal employees, and the more than 60 University and Foundation employees nationwide that support the program.



For more information, contact:

Barbara Moore, Director
National Undersea Research Program
1315 East West Hwy
Silver Spring, MD 20910
Phone: 301-713-2427
<http://www.nurp.noaa.gov>
